

Claim Amendments

1. (currently amended) An apparatus comprising:
 - (a) a rotatable support for one or more linear arrays, each of said linear arrays comprising an enclosed channel having internal capillary dimensions and having attached on an internal surface of the channel an array of features for conducting chemical reactions, wherein a surface of the rotatable support comprises retaining elements for retaining each linear array on the rotatable support,
 - (b) a rotation device for rotating said support, and
 - (c) an examining device for examining for the results of said chemical reactions.
2. (original) An apparatus according to Claim 1 wherein said rotatable support comprises a circular tray.
3. (original) An apparatus according to Claim 1 further comprising a heater for heating said linear arrays.
4. (original) An apparatus according to Claim 1 wherein said examining device comprises an imaging system.
5. (original) An apparatus according to Claim 1 wherein said examining device comprises a CCD detector.
6. (original) An apparatus according to Claim 1 further comprising a fluid dispensing device.
7. (currently amended) An apparatus according to Claim 1 wherein each of said ~~rotatable support comprises one or more~~ retaining elements, ~~each of which receives an elongated array unit in a seated position in which it~~ extends in a ~~the~~ radial direction ~~while retaining the array in the seated position during rotation about an axis of the support.~~
8. (original) An apparatus according to Claim 1 wherein said examining device is linear and oriented so as to be optically aligned with each of multiple seated array units in turn as the support is rotated.

9. (currently amended) An apparatus according to Claim 1 further comprising a processor that controls rotation of said support such that at one speed fluid is removed from said enclosed channel ~~linear array~~ and at another speed the support is advanced and held for examination by said examining device.

10. (currently amended) An apparatus for conducting and analyzing the results of hybridization reactions, said apparatus comprising:

(a) a circular tray having a surface for supporting one or more enclosed channels having capillary dimensions, each of said channels comprising one or more linear arrays attached to an internal surface of the channel, each of said linear arrays comprising a plurality of biopolymers for conducting hybridization reactions, wherein the surface of the circular tray comprises retaining elements for retaining each enclosed channel thereon,

(b) a rotation device for rotating said circular tray, and

(c) a scanning device for examining the results of said hybridization reactions.

11. (original) An apparatus according to Claim 10 wherein said scanning device comprises an imaging system.

12. (original) An apparatus according to Claim 10 further comprising a heater for heating said linear arrays.

13. (original) An apparatus according to Claim 10 wherein said scanning device comprises a CCD detector.

14. (original) An apparatus according to Claim 10 further comprising a fluid dispensing device.

15. (original) An apparatus according to Claim 10 further comprising a bubble detecting device for examining said channels for the presence of bubbles therein.

16. (withdrawn) A method for conducting chemical reactions, said method comprising:

(a) introducing a sample into a linear array of an apparatus according to Claim 1 by capillary action,

- (b) incubating said sample in said linear array under conditions for carrying out said chemical reactions, and
- (c) rotating said support to remove said sample from said linear array.

17. (withdrawn) A method according to Claim 16 wherein said sample is introduced into said linear array by placing a sample at the orifice of said linear array, said linear array having internal dimensions to draw said sample therein by capillary action.

18. (withdrawn) A method according to Claim 16 wherein said linear array is rotated to remove said sample from said linear array by centrifugal force.

19. (withdrawn/amended) A method for conducting hybridization reactions, said method comprising:

- (a) placing a sample at an orifice of a channel of an apparatus according to Claim ~~10~~ 16, said channel having internal dimensions to draw said sample therein by capillary action,
- (b) incubating said sample in said channel under conditions for carrying out said hybridization reactions, and
- (c) rotating said channel to remove said sample from contact with said features of said linear arrays by centrifugal force.

20. (withdrawn) A method according to Claim 19 wherein said channel is rotated in step (c) about an axis perpendicular to the axis of said channel wherein the rate of rotation about said axis is sufficient to remove said sample from contact with said features.

21. (withdrawn) A method according to Claim 19 further comprising examining said channel for the presence of bubbles therein subsequent to step (a).

22. (withdrawn) A method according to Claim 19 wherein a plurality of said channels is employed and said channels are disposed on a rotatable support.

23. (withdrawn) A method according to Claim 22 wherein said rotatable support is a circular tray.

24. (withdrawn) A method according to Claim 22 wherein said rotatable support is rotated in step (c).

25. (withdrawn) A method according to Claim 19 wherein said channel is heated prior to step (a) to a temperature for incubating said sample in step (b).

26. (withdrawn) A method according to Claim 19 further comprising introducing a wash liquid into said channel prior to or in conjunction with step (c).

27. (withdrawn) A method according to Claim 19 further comprising examining said linear array for the results of said hybridization reactions.

28. (withdrawn) A method according to Claim 19 wherein said channel is part of a microfluidic system.

29. (withdrawn) A method according to Claim 19 wherein said channel is part of a housing.

30. (withdrawn) A method according to Claim 19 wherein said linear array is a linear microarray.

31. (withdrawn) A method according to Claim 19 wherein said features are biopolymers.

32. (withdrawn) A method according to Claim 19 wherein said features are polynucleotides or polypeptides.

33. (withdrawn) A method according to Claim 19 wherein said linear array comprises at least ten features.

34. (withdrawn) A method comprising forwarding data representing a result obtained from a method according to Claim 27.

35. (withdrawn) A method according to Claim 34 wherein the data is transmitted to a remote location.

36. (withdrawn) A method comprising receiving data representing a result obtained from a method according to claim 27.